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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/833,780	04/12/2001	Dieter H. Nattkemper	100.168US01	3923

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EXAMINER
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FERRIS, DERRICK W

ART UNIT	PAPER NUMBER
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2663

DATE MAILED: 10/23/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/833,780

Applicant(s)

NATTKEMPER ET AL.

Examiner

Derrick W. Ferris

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 12 April 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-54 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-54 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 April 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. **Claims 1-6, 10-15, 18-24, 27, 49-51 and 53-54** are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,349,098 to *Parruck et al.* ("*Parruck*").

As to **claim 1**, *Parruck* discloses a method and apparatus for forming a permanent virtual circuit using a reasonable but broad interpretation of "permanent". In particular, *Parruck* discloses an improved method for automatically forming a virtual circuit in an ATM switch [Abstract]. A step of "detecting initiation of communication between a first and a second element" is taught at column 6, lines 39-65 by receiving a configuration request cell (CRC) at InPORT 410(p). Also taught is receiving at least one virtual circuit identifier of the first network at column 6, lines 38-42 and column 6, lines 62-63. Once the CRC is processed, a "translation connection" is taught as part of a lookup table at column 7, lines 1-24 and lines 58-64.

Not clearly disclosed from the reference is a step of "learning at least one virtual circuit identifier of the second network element". This is because the source device and destination device can be any one of a number of devices connected to an ATM switch (e.g., see column 6, lines 49-51). In particular, it may be unclear from the reference how an ATM data cell goes from port 510(p) to any ATM destination device 331 in figure 2

[column 11, lines 10-28]. However, examiner notes that it would have been obvious to one skilled in the prior to applicant's invention to perform a step of learning for a second element. As support and motivation, examiner notes that *Parruck* performs a step of learning since the user knows the destination port value when initiating the connection procedure. Thus *Parruck* cures the deficiency since in sending the SETUP signal, processor 416 of the InPORT must know the destination address to reach the output port. Furthermore, in order to route a call from virtual circuit 800 to OutPORT, the OutPORT processor 516 must know the output VPI/VCI if destination device 331 is an ATM device. In other words, examiner notes that one skilled in the art would be motivated to "associate" the ATM data cell using a permanent virtual circuit since the sender, which also is an ATM device, is also "associated" with a permanent virtual circuit as is known in the art.

As to **claims 2-3**, see column 7, lines 13-24; column 9, lines 1-15; and column 10, lines 46-64.

As to **claim 4**, see figure 10c.

As to **claim 5**, *Parruck* is silent or deficient to creating a new translation connection using the changed virtual circuit identifier. Examiner notes that it would have been obvious to one skilled in the art prior to applicant's invention to create a new translation connection. *Parruck* helps cure the above cited deficiency by checking the validity of the connection. If the connection is no longer valid then the connection is torn down. Assuming the "changed virtual identifier" is learned by the ATM switch, then one skilled in the art would be motivated to retransmit the lost or remaining data using the

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“changed connection identifier”. Examiner notes support is provided by *Parruck* at column 9, lines 20-25.

As to **claim 6**, see at least column 9, lines 1-25.

As to **claim 10**, see the rejection for claim 1.

As to **claim 11**, see the rejection for claim 1.

As to **claim 12**, see the rejection for claim 2.

As to **claim 13**, see the rejection for claim 3.

As to **claim 14**, see the rejection for claim 5.

As to **claim 15**, see the rejection for claim 6.

As to **claim 18**, see the rejection for claim 1.

As to **claim 19**, see the rejection for claim 10.

As to **claim 20**, see the rejection for claim 1.

As to **claim 21**, see the rejection for claim 2.

As to **claim 22**, see the rejection for claim 3.

As to **claim 23**, see the rejection for claim 5.

As to **claim 24**, see the rejection for claim 6.

As to **claim 27**, see the rejection for claim 10.

As to **claim 49**, see the rejection for claim 11.

As to **claim 50**, see the rejection for claim 5.

As to **claim 51**, see the rejection for claim 6.

As to **claim 53**, see the rejection for claim 18.

As to **claim 54**, see the rejection for claim 10.

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3. **Claims 7, 8, 16, 17, 25, 28, and 52** are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,349,098 to *Parruck et al.* ("*Parruck*") in view of "ATM Foundation for Broadband Networks" to *Black* and in further view of "Soft PVCS in an ATM Network" to *Rice*.

As to **claim 7**, *Parruck* is silent or deficient to a predetermined number of changes. Examiner notes that it would have been obvious to one skilled in the art prior to applicant's invention to use a predetermined number of changes. In particular, examiner notes that *Black* discloses a predetermined number of changes at page 254 (i.e., the ATM specifications require that only one retry may be attempted after which a null state must be entered). Thus *Black* provides support and motivation for a predetermined number of changes. Examiner notes *Rice* teaches one example of how SVC connections may be used in an ATM switch as part of a soft PVC (i.e., PVCs on the edge as claimed by applicant and an SVC in the core of an ATM switch matrix as possible taught by *Parruck*). *Rice* also provides a further motivation to combine the reference by disclosing that a DSLAM uses SPVCs (see page 4).

As to **claim 8**, *Parruck* is silent or deficient to a "predetermined amount of time" where examiner notes a similar obviousness rejection can be applied as above for claim 8 where *Black* teaches the use of timers on page 250.

As to **claim 16**, see the rejection for claim 7.

As to **claim 17**, see the rejection for claim 8.

As to **claim 25**, see the rejection for claim 7.

As to **claim 28**, see the rejection for claim 8.

As to **claim 52**, see the rejection for claim 8.

4. **Claims 9, 26, 29-33, 35-36, 38-44, and 47-48** are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,349,098 to *Parruck et al.* ("*Parruck*") in view of "An Overview of Broad-band Access Technologies" to *Gagnaie*.

As to **claim 9**, *Parruck* teaches an associate network using a reasonable but broad interpretation of "associated network". However, assuming, *al arguendo*, that *Parruck* does not teach an "associated network", then examiner notes that it would have been obvious to one skilled in the art prior to applicant's invention to use an "associated network". As support and motivation, *Gagnaie* teaches an "associated network" shown in figure 11, at page 1964. In particular, examiner notes that the digital switch disclosed by *Parruck* is represented as the DSLAM or ATM-C device as is known in the art.

As to **claim 26**, see the rejection for claim 9.

As to **claim 29**, combine the rejections of claim 1 and 9.

As to **claim 30**, see the rejection for claim 2.

As to **claim 31**, see figure 11 at page 1964.

As to **claim 32**, see the rejection for claim 5.

As to **claim 33**, see the rejection for claim 6.

As to **claim 35**, see the rejection for claim 29.

As to **claim 36**, see the rejection for claim 10.

As to **claim 38**, see the rejection for claim 9.

As to **claims 39 and 40**, see figure 11 at page 1964.

As to **claim 41 and 42**, see the rejection for claim 9.

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As to **claim 43**, see the rejection for claim 4.

As to **claim 44**, see the rejection for claim 5.

As to **claim 47**, see the rejection for claim 9.

As to **claim 48**, see the rejection for claim 10.

5. **Claims 34, 37, 45, and 46** are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,349,098 to *Parruck et al.* ("*Parruck*") in view of "An Overview of Broadband Access Technologies" to *Gagnaie* and "ATM Foundation for Broadband Networks" to *Black* and in further view of "Soft PVCS in an ATM Network" to *Rice*.

As to **claim 34**, see the rejection for claim 7.

As to **claim 37**, see the rejection for claim 8.

As to **claim 45**, see the rejection for claim 7.

As to **claim 46**, see the rejection for claim 8.

### ***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- US006198745B1 discloses a method of translation between a well known PVC and an ATM PVC.
- US2001/0015978A1 discloses a system and method for automatically configuring a cross connects in a DSLAM.
- US 20020071440A1 discloses a VDSL provisioning system which uses the MAC address for automatic provisioning.



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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Derrick W. Ferris whose telephone number is (703) 305-4225.


The examiner can normally be reached on M-F 9 A.M. - 4:30 P.M. E.S.T.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau Nguyen can be reached on (703) 308-5340. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 305-3900.

Derrick W. Ferris  
Examiner  
Art Unit 2663

  
DWF

  
CHI PHAM  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600 10/17/03